

BUTTERFLIES OF LUZON ISLAND IN PHILIPPINES, WITH DESCRIPTIONS OF NEW SPECIES AND SUBSPECIES

SHU-ITI MURAYAMA

Shinjô-chô 3-6, Ibaraki-shi, Ôsaka-fu

AND

HACHIRO OKAMURA

Mikage-Nakamachi 1-10-6, Higashi-Nada-ku, Kôbe-shi

In 1972, during eight days, in early April, we made a short hunting trip to Luzon Island in Philippines. We collected six different places, namely, Mt. Santo Thomas (ca. 2250 m), Ashin Hot Spring (ca. 300 m), the Botanical Garden in the Bureau of Forestry at Baguio (ca. 1500 m), Tagaytay (ca. 1000 m), the Quezon National Park at Atimonan (ca. 300 m), and the lowland near Manila. In the spring of 1971, one of us (H.O.) also visited Luzon Island, and collected during only a few days in Mt. Santo Thomas, Ashin, and Tagaytay.

The following list of the Luzonian butterflies in early April contains the butterflies collected as well as those only observed (the latter being marked with an asterisk), enumerating 129 species, of which two species and seven subspecies are new to science.

We are much indebted to Mr. Hermel Nuyda and his son Mr. Robert Nuyda for supplying us with many precious materials and for their kind advice. Sincere thanks are due to Prof. Dr. Takashi Shirôzu for giving me a copy of Semper's work. We wish to express our cordial gratitude to Mr. Peping Pascual for accompanying us on collecting trips. Further, Prof. Dr. Michiko Hida and her staff in the Botanical Laboratory of the Osaka Prefectural Women's University have kindly permitted us to use the equipments for our microscopic examination.

Papilionidae

1. *Troides magellanus* Felder コウトウキシタアゲハ

1♂, Tagaytay; many butterflies flying highly in the forest were observed in Tagaytay.

2. *T. rhadamantus* Lucas フィリピンキシタアゲハ

One male was obtained in the forest on the lowland near Manila. In the case of high flight, it is difficult to distinguish between *T. magellanus* and *T. rhadamantus*.

3. *Pachliopta mariae* Semper マリアベニモンアゲハ*

1♂, Atimonan. The present specimen was in a damaged condition, and it seems that the season was too late for us to collect the specimens of *P. mariae*.

4. *P. aristolochiae kotzubea* Eschscholtz ベニモンアゲハ

5♂♂, 1♀, Ashin. One of us (H.O.) obtained a nigriscent example, of which all the red markings on hindwing are vanished, as in *P. atropos*.

5. *Papilio rumanzovia* Eschscholtz アカネアゲハ

7♂♂, 2♀♀, Ashin, Baguio and Atimonan. The two females belong to the form *semperinus*. The seven males include two forms, viz., one with red basal mark and the other without any marks on forewing above.

6. *P. helenus hydaspes* Felder モンキアゲハ

7♂♂, Baguio. Jordan (1909) treated this subspecies as a Luzonian race of *helenus*, but we rather think that *hydaspes* may be a good species, as treated by Semper (1886-1892).

7. **P. palinurus daedalus* Felder オオクジャクアゲハ

A few butterflies were observed in Atimonan, but we failed to take this rapid species. It may be correct that Semper (1886–1892) treated *daedalus* as a good species.

8. *P. chikae* Igarashi ルソンカラスアゲハ

1♂, Mt. Santo Thomas. A much damaged male was taken and a few butterflies were observed on the saddle of Mt. Santo Thomas.

9. *P. polytes ledebouria* Eschscholtz シロオビアゲハ

14♂♂, 9♀♀, Ashin and Atimonan. The females of our collected materials have no white marking in the cell of hindwing, or sometimes have faintly small white scales in the space 3 of hindwing.

10. *P. benguetana* Joice et Talbot ベンゲットアゲハ

3♂♂, 2♀♀, Mt. Santo Thomas. The example collected in April (dry-seasonal form) has more reduced black markings and slenderer tail of hindwing than in the wet-seasonal form.

11. *Chilasa clytia palephates* Westwood キベリアゲハ

2♂♂, 3♀♀, Ashin.

12. *Graphium agamemnon* Linné コモンタイマイ

1♂, Ashin.

13. *G. sarpedon* Linné アオスヂアゲハ

2♂♂, Tagaytay.

Pieridae

14. *Delias henningia* Eschscholtz フィリピンアカネシロチョウ*

8♂♂, 2♀♀, Ashin and Tagaytay.

15. *D. georgina* Felder (Figs. 1, 2) ウラキマダラシロチョウ*

4♂♂, 1♀, Mt. Santo Thomas.

16. *D. hyparete luzonensis* Fruhstorfer ベニモンシロチョウ

An individual was observed in Ashin in 1972. In 1971, one of us (H.O.) got four males and two females in Ashin and Tagaytay.

17. *Appias phoebe* Felder (Figs. 3–6) ルソンタカネシロチョウ*

13♂♂, 1♀, Mt. Santo Thomas. In the males of our obtained specimens, there are two strikingly different forms in the ground colour of both wings on uppersurface: one is white, and the other is light pale yellow. Of 13 males, five are the pale yellow form.

18. *A. nero domitia* Felder ベニシロチョウ

1♂, Tagaytay.

19. *A. paulina agave* Felder ナミエチョウ

2♂♂, Atimonan.

20. *Pieris canidia* Sparrman タイワンシロチョウ

Everywhere plentiful, but we caught only a short series.

21. *Leptosia nina georgi* Fruhstorfer タイワンヒメシロチョウ

1♂, in the forest on the lowland near Manila.

22. *Valeria boeberia* Eschscholtz フィリピンアサギシロチョウ*

1♂, 1♀, in the forest on the lowland near Manila.

23. *Cepora aspasia olga* Eschscholtz キシタシロチョウ
6♂♂, 3♀♀, in the forest on the lowland near Manila.
24. *C. boisduvaliana* Felder クロヘリシロチョウ
3♂♂, Ashin and Tagaytay.
25. *Catopsilia pyranthe* Linné ウラナミシロチョウ
2♂♂, Ashin and Tagaytay.
26. **Hebomoia glaucippe philippensis* Wallace ツマベニチョウ
One male was observed in Tagaytay.
27. *Eurema blanda visellia* Fruhstorfer タイワンキチョウ
28. *E. hecabe luzoniensis* Linné キチョウ
Numerous materials of this and the preceding species were taken in Ashin, Tagaytay and Atimonan.

Danaidae

29. *Danaus chrysippus* Linné カバマダラ
1♂, Ashin.
30. *D. lotis edmondi* Bougainville コウトウマダラ
2♂♂, Ashin and Atimonan.
31. *D. phyle* Felder (Fig. 10) タカネアサギマダラ*
5♂♂, 2♀♀, Mt. Santo Thomas.
32. *D. luzonensis praemacaristus* Fruhstorfer ルソンアサギマダラ*
3♂♂, Atimonan.
33. *D. juvena manillana* Moore トガリアサギマダラ*
Plentiful materials in Ashin, Atimonan, etc. It seems to be a common species.
34. **Idea leuconoe obscura* Staudinger オオゴマダラ
A few butterflies were observed in Tagaytay.
35. *Euploea semperi* Felder センペルムラサキマダラ*
1♂, 2♀♀, Atimonan and Ashin.

Satyridae

36. *Ragadia luzonia* Felder タテジマヒメヒカゲ
2♂♂, 1♀, Atimonan.
37. *Acrophthalma artemis* Felder *ウスイロヒメヒカゲ*
1♂, Atimonan.
38. *Orsotriaena medus medus* Fabricius (Fig. 7) シロイチモンジヒカゲ*
4♂♂, Atimonan. Although we are provisionally treating the present specimens as the nominate subspecies, they have very narrow but very prominent white band and small submarginal ocelli on the undersurface of both wings.
39. *Ypthima stelleria* Eschscholtz フィリピンウラナミジャノメ*
18♂♂, 18♀♀, Tagaytay, Ashin and Atimonan. Everywhere not scarce.

40. *Y. pandocus sempera* Felder センペルウラナミジャノメ*
2♂♂, Ashin. Not plentiful in Ashin.
41. *Y. nigricans* Snellen (Figs. 8, 9) ジャウウラナミジャノメ*
3♂♂, Baguio and Mt. Santo Thomas. This species is recorded from Luzon for the first time. Three ocelli of hindwing on undersurface are remarkably small, and it is probably the dry-seasonal form. We obtained no male examples.
42. *Mycalesis ita* Felder ベニヒメジャノメ*
7♂♂, 1♀♀, Atimonan and Ashin. The reddish area of both wings on uppersurface is very wide. It seems to be the dry-seasonal form.
43. *M. perseus caesonia* Wallace ヒメヒトツメジャノメ
6♂♂, Atimonan and Ashin.
44. *M. aramis* Hewitson (Fig. A) クロヒメジャノメ*
4♂♂, 2♀♀, Baguio and Ashin.
45. *M. bisaya* Felder?
A large male taken in Baguio is so damaged that the exact identification needs more materials.
46. *Zethenia pimpla* Erichson フィリピンマダラヒカゲ*
2♂♂, 3♀♀, Atimonan and Ashin. The female much resembles *Euploea*-species in appearance.
47. **Lethe dura dataensis* Fruhstorfer オジロヒカゲ
We found frequently at Mt. Santo Thomas, but could not catch any materials. Butterflies rapidly run away low on the ground. In 1971 one of us (H.O.) collected a male at Mt. Santo Thomas.
48. *Melanitis leda* Linné ウスイロコノマチョウ
1♂, Ashin.

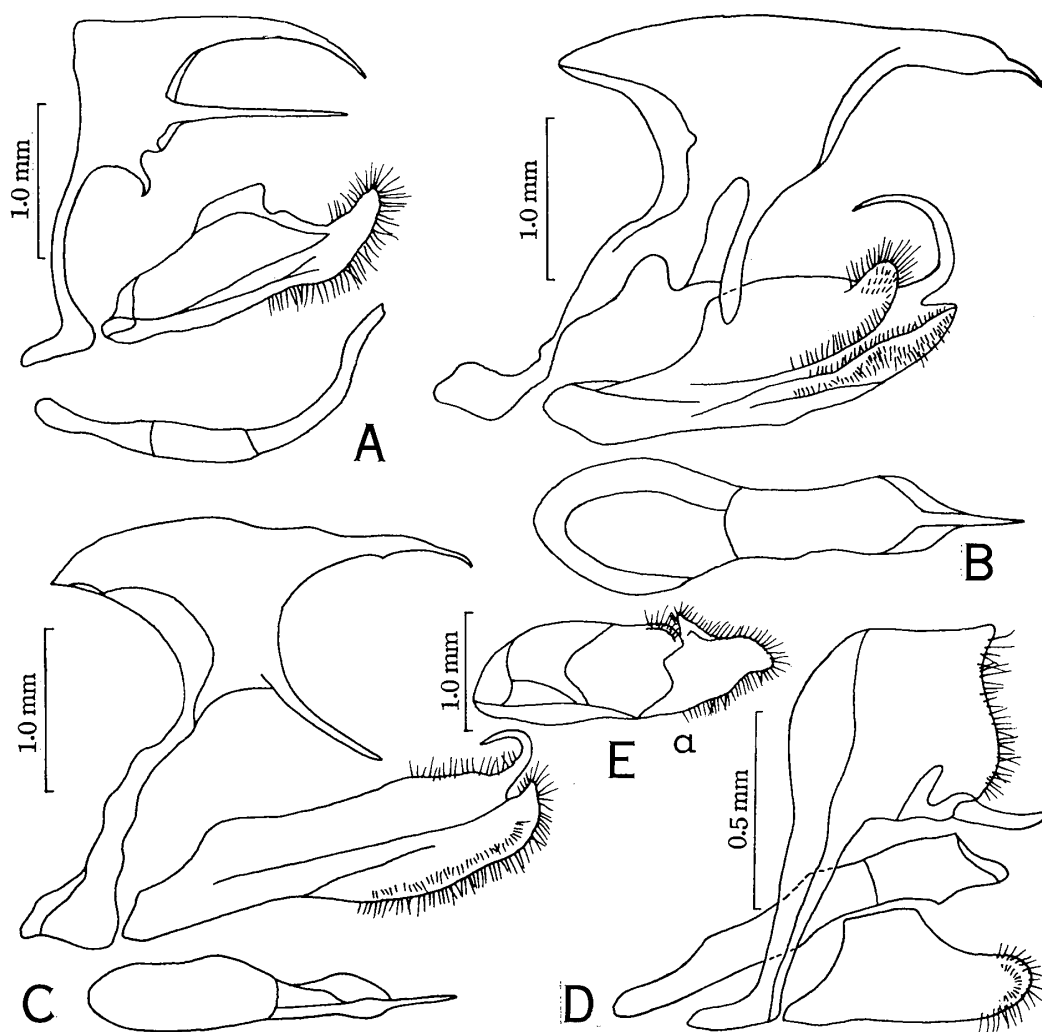
Amathusiidae

49. *Faunis phaon* Erichson ルソンジャノメモドキ*
1♂, Atimonan. We observed some butterflies, but failed to take them, owing to the rapid flight.

Nymphalidae

50. *Ariadne merione luzonia* Felder ルソンカバタテハ*
2♂♂, Atimonan.
51. *Vindula erota dejone* Erichson ベニタテハ
1♂, Atimonan. Some examples were observed on the high trees.
52. *Rhinopalpa polynice stratonice* Felder ソトグロカバタテハ
1♂, Ashin. Rare species.
53. *Cethosia biblis insularis* Felder ルソンハガタテハ*
1♂, Atimonan.
54. *Precis orithyia* Linné アオタテハモドキ
3♂♂, Baguio.
55. *P. hedonia iwasaki* Matsumura イワサキタテハモドキ
11♂♂, 1♀, Ashin. Common in Ashin. We use provisionally the Okinawa race name *iwasaki* for the Luzon race.

56. *P. almana* Linné タテハモドキ
2♂♂, Ashin.
57. *Argyreus hyperbius sagada* Fruhstorfer ツマグロヒョウモン
5♂♂, Mt. Santo Thomas. Very beautiful race which is strongly bright red in the cell and the costa of forewing on uppersurface. We regretly got no females.
58. *Vanessa indica* Herbst アカタテハ
2♂♂, Mt. Santo Thomas.
59. *V. cardui* Linné ヒメアカタテハ
1♂, Mt. Santo Thomas.
60. *Kaniska canace benguetana* Semper ルリタテハ
1♂, Mt. Santo Thomas.
61. *Hypolimnas bolina philippensis* Butler リュウキュウムラサキ
1♂, Ashin.
62. *H. antilope truentus* Fruhstorfer ヤエヤマムラサキ
2♂♂, Tagaytay.
63. *Symbrenthia hippoclus thimo* Fruhstorfer キミスヂ
2♂♂, Tagaytay.
64. **Doleschallia bisaltide philippensis* Fruhstorfer イワサキコノハ
One butterfly was only observed in Ashin.
65. *Euthalia jama* Felder クロイナヅマ*
3♂♂, 1♀, Ashin.
66. **Tanaecia calliphorus* Felder ルソンニジイナヅマ
We regretly failed to catch one male of this beautiful species in Atimonan.
67. *Athyma kasa* Moore カサイチモンジ*
4♂♂, Ashin. The wet-seasonal form is called f. *kasa*, and our collected specimens may probably be identified with the dry-seasonal form *kasina* Fruhstorfer.
68. *A. gutama* Moore グータマイチモンジ*
4♂♂, 1♀, Ashin and Atimonan.
69. *Pantoporia dara* Moore シロキンミスヂ*
5♂♂, 1♀, Ashin. Very similar in appearance to *Lasippa illigera*, but smaller and prettier.
70. *Lasippa illigera* Eschscholtz ミスヂモドキ*
15♂♂, 8♀♀, Ashin.
71. *Phaedyma columella eremita* Felder (Figs. 11, 12, B) ネットイオオミスヂ*
3♂♂, 1♀, Baguio and Tagaytay. Commonly found on the high trees. Eliot (1969) mentioned that a single male from North Luzon has very narrow markings. All the present examples have broad markings.
72. *Neptis cymella* Felder (Figs. 13, 14, C) ルソンミスヂ*
3♂♂, 1♀, Tagaytay and Ashin. According to Eliot's opinion (1969), *N. cymella* may be conspecific with *N. nitetis* Hewitson, but the present specimens prove *cymella* to be a good species in the appearance as well as in the male genitalia. The male of this species has hitherto been unknown and is described below.
Male. Forewing length 26 mm. Uppersurface: ground colour of both wings brownish black. Forewing: white cell streak and white streak beyond cell very narrow, interrupted by ground colour, the latter streak being



Figs. A-E. Male genitalia; (a) left valva: (A) *Mycalesis aramis* Hewitson; (B) *Phaedyma columella eremita* Felder; (C) *Neptis cymela* Felder; (D) *Narathura shigeae* sp. nov.; (E) *Halpe nuydai* sp. nov.

long and its tip much sharpened; white postdiscal band consisting of markings in spaces 1, 2, 3, 4, 5, 6 and 7, the marking of the space 2 being largest and that of space 7 smallest; marginal darkish fasciae obscure; submarginal brownish white fasciae conspicuous, except at apex. Cilia chequered by white and black parts. Hindwing: central white band broad, but narrower in space 8; discal brownish fasciae more obscure than submarginal one; brownish white postdiscal band narrow and prominent. Cilia as in forewing. Undersurface: ground colour of both wing sepia black, with dull purplish lustre; markings as in uppersurface, but marginal and submarginal fasciae of forewing white and distincter than in uppersurface; discal greyish brown fasciae, postdiscal white band, and submarginal white fasciae of hindwing distincter than in uppersurface; subbasal streak whitish, but not so conspicuous.

Both sexes are identical with each other in markings and colour, but the female is larger in size and more rounded in shape of both wings. In the male genitalia, the brachium is long and slender, the tip being much sharpened. The sickle-shaped terminal process of ampulla is strongly curved towards inside (in *N. nitetis* it is not so strongly curved).

This species appears to be fairly rare.

73. *Neptis mindorana ilocana* Fruhstorfer (Fig. 15) フィリピンコムスデ*
10♂♂, 3♀♀, Ashin.

74. *N. pampanga* Felder (Figs. 16, 17) ミヤマコミスヂ*

1♂, 1♀, Ashin. The considerably rare species is closely allied to *N. mindorana ilocana*, but differs from it in the white streak beyond the cell of forewing on uppersurface longer and more sharpened.

75. *Cyrestis maenalis* Erichson フィリピンイシガキチョウ*

4♂♂, 2♀♀, Ashin, Tagaytay and Mt. Santo Thomas.

76. *Charaxes amycus* Felder ルソンフタオチョウ*

1♂, Atimonan. We regretly let another large *Charaxes* species escape in Ashin.

77. *Phalanta phalanta luzonica* Fruhstorfer ウラベニヒョウモンモドキ

1♂, Ashin.

Riodinidae

78. *Abisara echerius* Stoll, ssp. (Figs. 18, 19) オキナワシジミタテハ

5♂♂, 1♀, Ashin. Semper (1886–1892) treated the Luzonian *echerius* as *celebica*, and Fruhstorfer (1914) described *cudaca* as a new race of *celebica*, but all the present specimens belong not to *celebica*, but to *echerius*. The Luzonian race differs from the nominate subspecies, occurring in Hongkong, in the most inside white band of forewing on undersurface approached to outer margin near inner margin. Judging from Semper's description in 1886–1892, the similar characteristic is found in the Luzonian race identified by him as *celebica*. Therefore, it is possible that his *celebica* may be *echerius*. This question must be reserved for further consideration.

Curetidae

79. *Curetis tagalica* Felder フィリピンウラギンシジミ*

8♂♂, 10♀♀, Ashin.

Lycaenidae

80. *Deudorix epijarbas coriolanus* Fruhstorfer ヒイロシジミ

1♂, Ashin.

81. *Rapala alcetas* Staudinger ベンゲットシジミ*

2♂♂, 2♀♀, Ashin.

82. *Rapala tara ashinensis* ssp. nov. (Figs. 20–23) アシンシジミ*

Holotype ♂, forewing length 17 mm, and paratypes 1♂ and 1♀, 17–19 mm, 4. IV. 1972, Ashin; all in the personal collection of Okamura.

Hitherto there has been no record of the species *R. tara* from Luzon.

The new subspecies differs from the nominate one from Assam, India, in the following points: 1) A smooth ovate patch at base of space 7 of hindwing on uppersurface larger. 2) Ground colour of both wings on undersurface light greyish yellow. 3) Black spot in black pupilled yellow marking of space 3 of hindwing on undersurface much smaller. 4) Oblique silver narrow streak near anal lobe of hindwing on undersurface more conspicuous. 5) Streaks in discoidal vein of both wings on undersurface more prominent.

Both sexes alike, but the ground colour of both wings on uppersurface in female much lighter than in male; also on undersurface, female lighter than male.

83. *Remalana jangala esra* Fruhstorfer フタオムラサキシジミ*

1♂, Ashin.

84. *Hypolycaena erylus tmolus* Felder オスルリフタオシジミ*

5♂♂, 4♀♀, Ashin.

85. *H. siphylus tharrytas* Felder シタジロフタオシジミ*
2♂♂, Ashin. Rare species.
86. *Pratapa deudorix* Hewitson フィリピンアサギシジミ*
1♂, Tagaytay. Rare species.
87. *Pratapa cleobis igolotiana* ssp. nov. (Figs. 24, 25) イゴロットシジミ*

Holotype ♂, forewing length 16 mm, 2. IV. 1972, Mt. Santo Thomas, in Okamura's collection.

This is the first record of *P. cleobis* from Luzon. The new race is distinguished from the nominate race of India in some characters as follows: On the uppersurface, the bluish area of forewing broader, so the black apical portion of forewing narrower; on the contrary, the black zone of costal margin of hindwing broader. It seems to us a very rare subspecies.

88. *Cheritra orpheus* Felder (Figs. 26, 27) フィリピンオナガシジミ*
17♂♂, 9♀♀, Ashin. Locally plentiful, but is difficult to catch the specimen in a perfect condition.

89. *Horaga lefebvrei* Felder レフェーブリティツオシジミ*
5♂♂, 1♀, Ashin. This pretty and beautiful species is scarce. One male of our collected specimens is the aberrant form *melera* Seitz, having very enlarged white markings in hindwing on undersurface.

90. *Horaga syrinx ashinica* ssp. nov. (Figs. 28–32, F) トガリティツオシジミ*

Holotype ♂, forewing length 15 mm, and paratypes 1♂ and 1♀, 15–16 mm, 6. IV. 1972, Ashin; all in the personal collection of Murayama.

The species *syrinx* is recorded from Luzon for the first time.

The present race is characterized by the discal white patch of forewing on uppersurface being largest of all the races of *syrinx*. On undersurface, the ground colour is yellowish brown. The white band of hindwing becomes gradually narrower from costa near to dorsum and connects with a narrow greenish silver band in the spaces 1 and 2. All the greenish silver markings from the spaces 1 to 3 are very brilliant and prominent.

Dr. A. Sibatani has kindly examined the male genitalia and given us the fine figure.

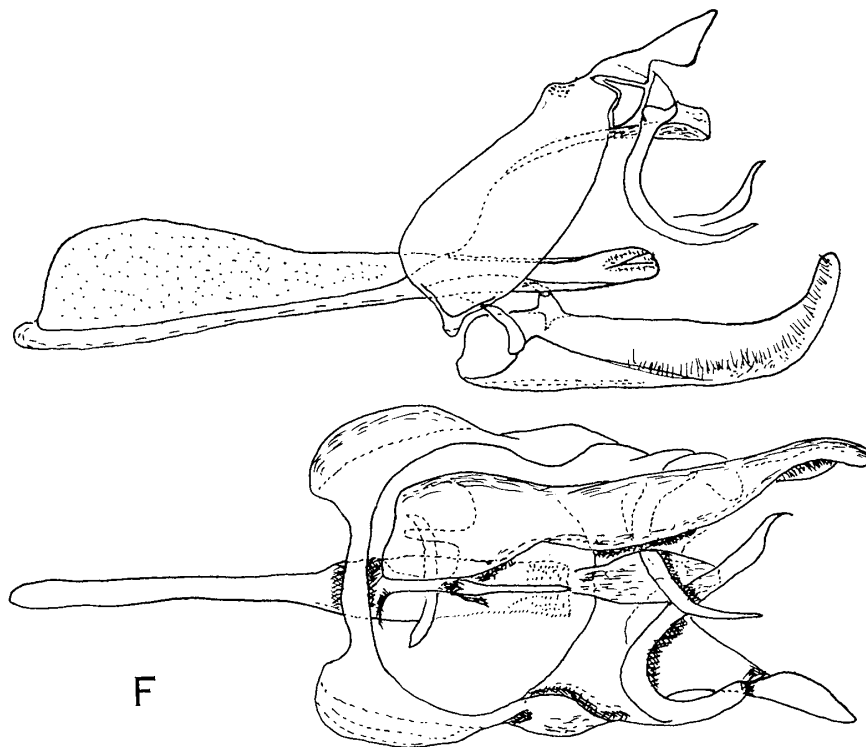
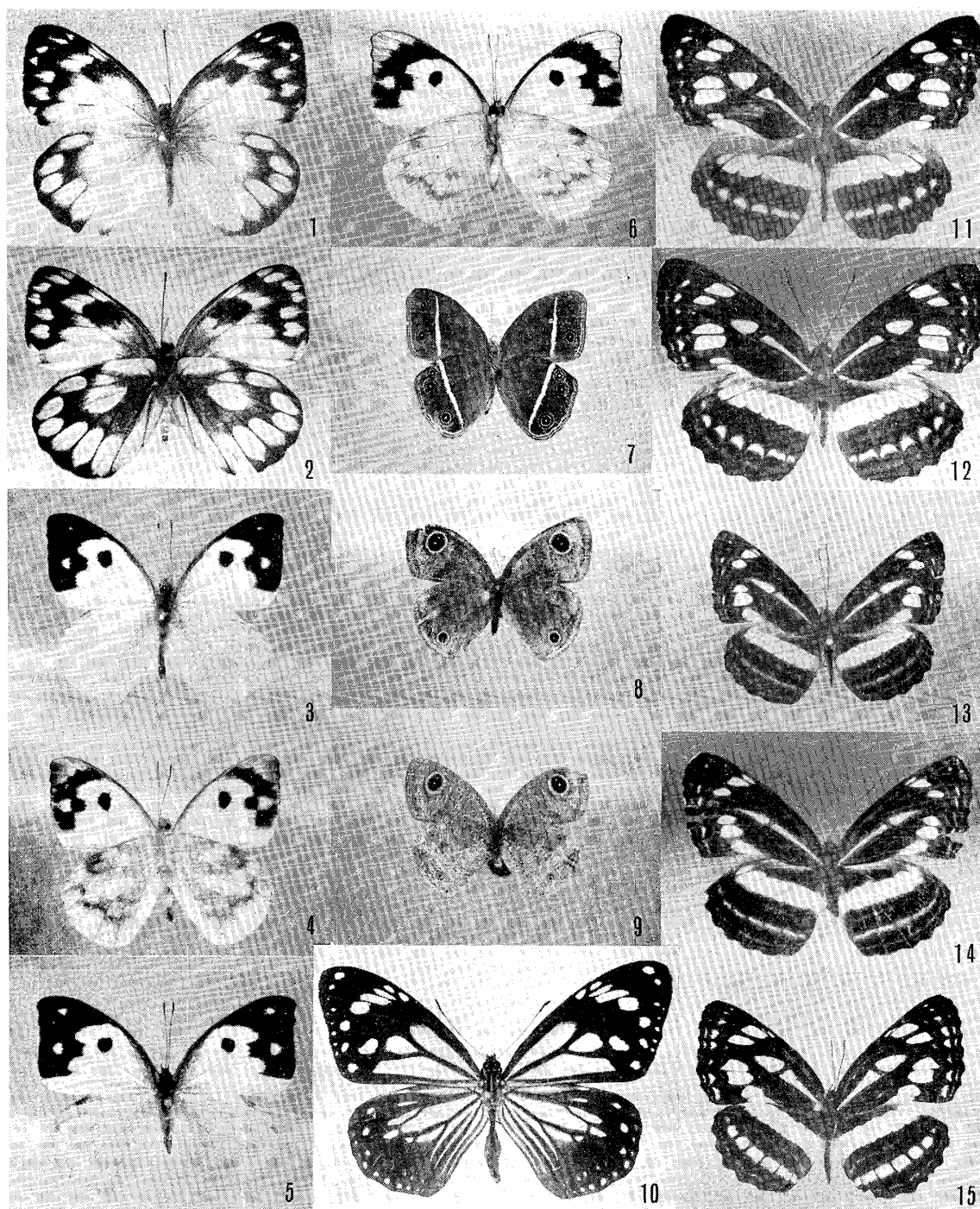
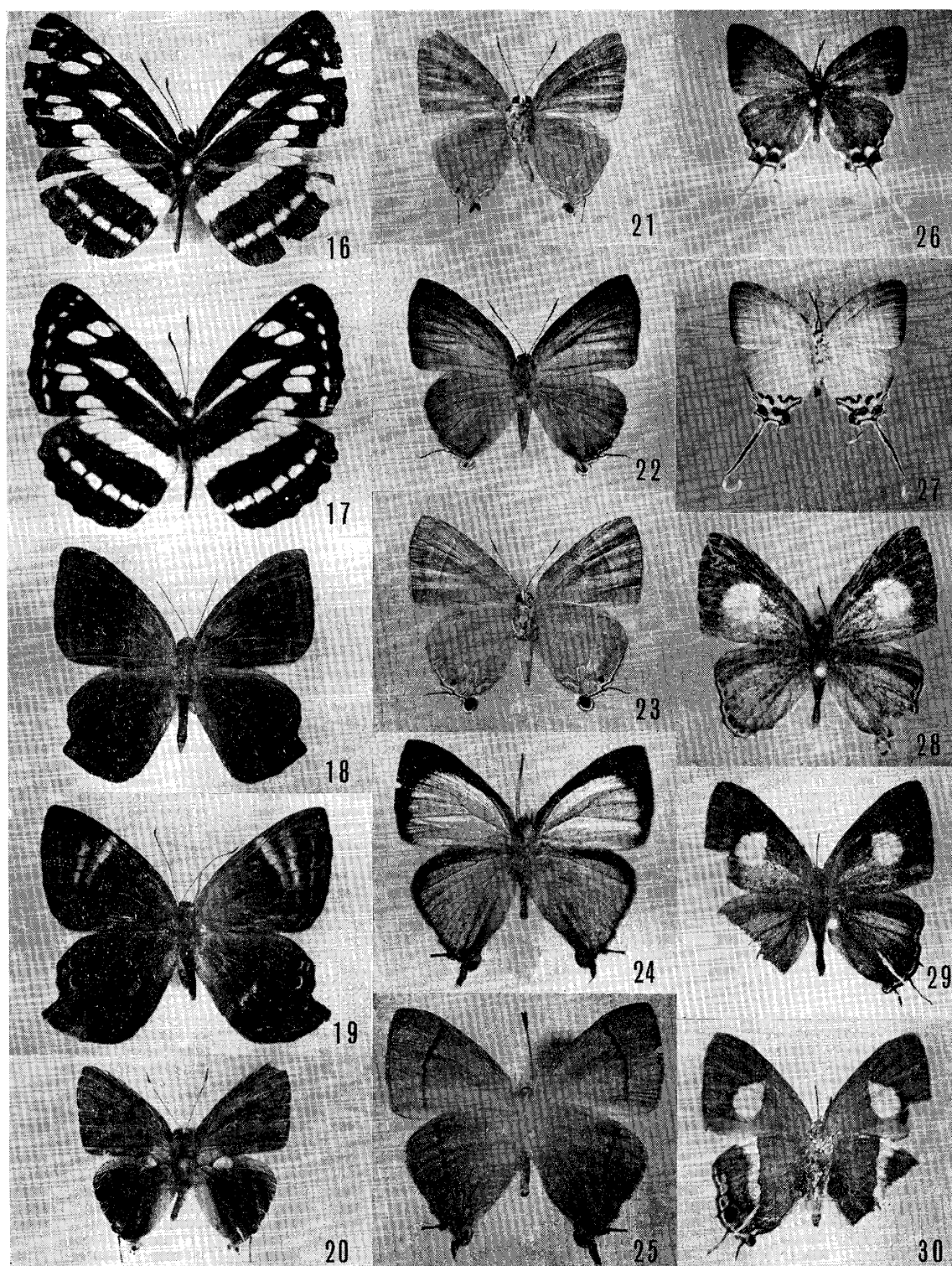


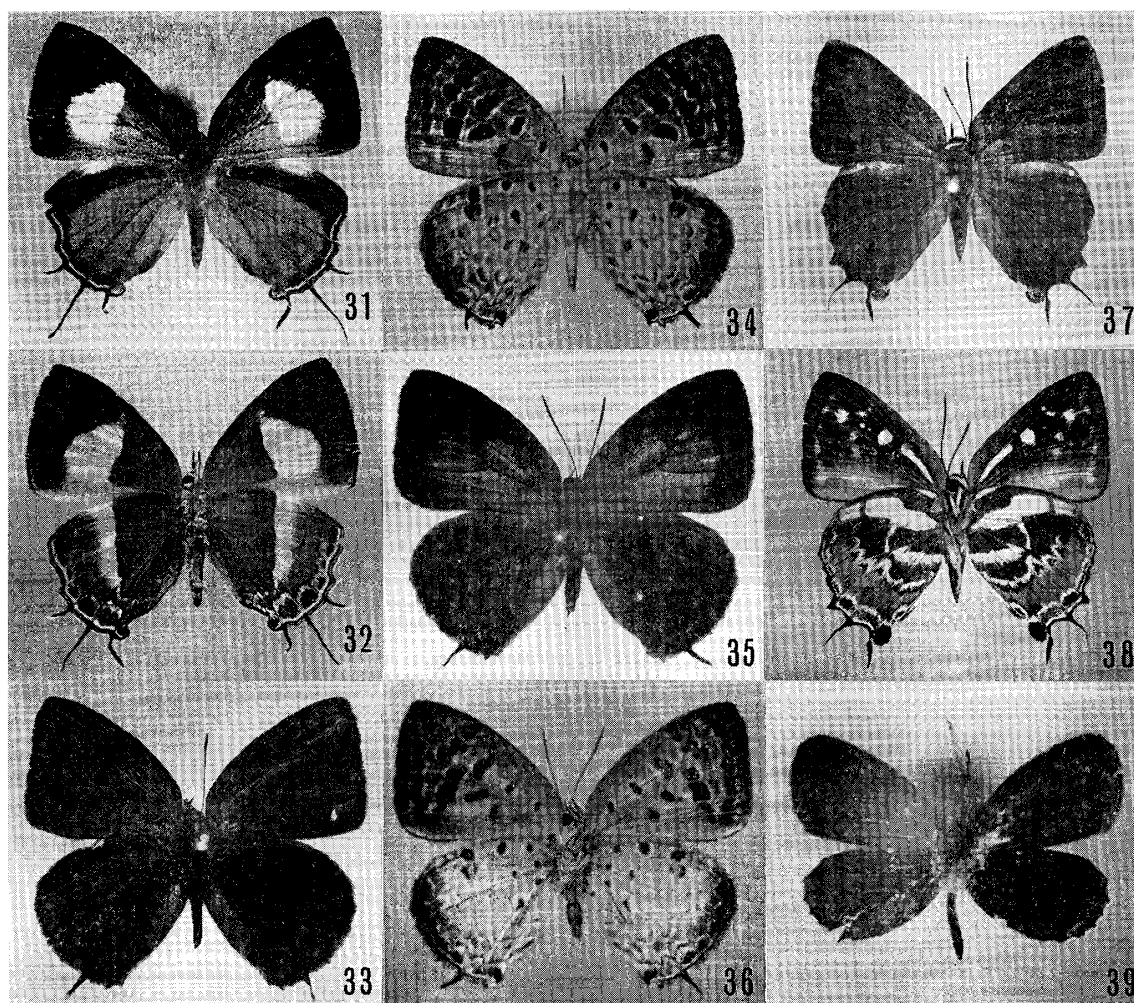
Fig. F. Male genitalia of *Horaga syrinx ashinica* ssp. nov. (A. Sibatani del.).



Figs. 1–15. Pieridae, Satyridae, Danaidae and Nymphalidae: (1) *Delias georgina* Felder, ♀, upperside, 29 mm in forewing length; (2) do., underside; (3) *Appias phoebe* Felder, ♂, upperside, 28 mm; (4) do., underside; (5) do., ♀, upperside, 31 mm; (6) do., underside; (7) *Orsotriaena medus medus* Fabricius, ♂, underside, 19 mm; (8) *Ypthima nigricans* Snellen, ♀, upperside, 20 mm; (9) do., underside; (10) *Danaus phyle* Felder, ♂, upperside, 38 mm; (11) *Phaedyma columella eremita* Felder, ♂, upperside, 32 mm; (12) do., ♀, upperside, 34 mm; (13) *Neptis cymela* Felder, ♂, upperside, 26 mm; (14) do., ♀, upperside, 30 mm; (15) *N. mindorana ilocana* Fruhstorfer, ♀, upperside, 24 mm,



Figs. 16-30. Nymphalidae, Riodinidae and Lycaenidae: (16) *Neptis pampangae* Felder, ♂, upperside, 25 mm in forewing length; (17) do., ♀, upperside, 30 mm; (18) *Abisara echerius* Stoll, ssp., ♂, upperside, 19 mm; (19) do., ♀, upperside, 21 mm; (20) *Rapala tara ashinensis* ssp. nov., holotype ♂, upperside, 16 mm; (21) do., underside; (22) do., paratype ♀, upperside, 19 mm; (23) do., underside; (24) *Pratapa cleobis igolotiana* ssp. nov., holotype ♂, upperside, 16 mm; (25) do., underside; (26) *Cheritra orpheus* Felder, ♀, upperside, 18 mm; (27) do., underside; (28) *Horaga syrinx ashinica* ssp. nov., paratype ♂, upperside, 15 mm; (29) do., holotype ♂, upperside, 15 mm; (30) do., underside,



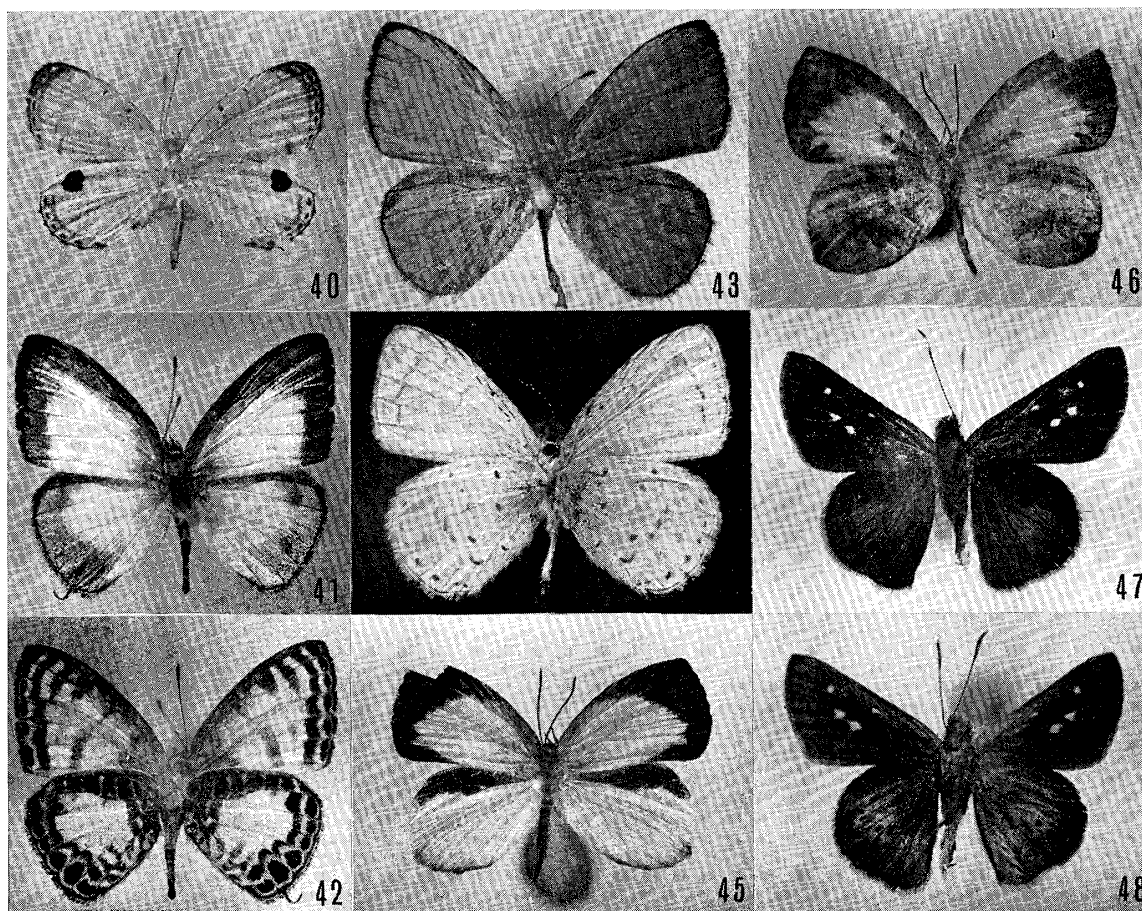
Figs. 31–39. Lycaenidae: (31) *Horaga syrinx ashinica* ssp. nov., paratype ♀, upperside, 16 mm in forewing length; (32) do., underside; (33) *Arhopala shigae* sp. nov., holotype ♂, upperside, 18 mm; (34) do., underside; (35) do., paratype ♀, upperside, 17 mm; (36) do., underside; (37) *Iraota timoleon luzoniensis* ssp. nov., holotype ♀, upperside, 18 mm; (38) do., underside; (39) *Pithecopa nihana luzonica* ssp. nov., holotype ♂, upperside, 9 mm.

91. *Arhopala centaurus aglais* Felder ネットイオオムラサキシジミ*
1♂, Ashin.

92. *Arhopala shigae* sp. nov. (Figs. 33–36, D) アシノムラサキシジミ*

Holotype ♂, forewing length 18 mm, and paratypes 12♂♂ and 3♀♀, 17–18 mm, 3–6. IV. 1972, Ashin; all in our collection.

Male. Uppersurface: both wings with ground colour deep purple; marginal black border very narrow, becoming broader towards anal angle and in costa of hindwing. Undersurface: forewing with ground colour greyish white; costa and upper half part of postdiscal area light brown; submarginal area darkish brown; row of white-edged brown postdiscal markings dislocated at vein 4; brown markings at base of space 3 very large and long, edged by white; a basal spot and two brown markings in cell and on discoidal vein white-edged; in spaces 10 and 11 two small brown spots, white-edged, present; basal obscure brown marking in spaces 1 and 2 not white-edged; both sides of submarginal and marginal waving deep brown bands edged with white line; cilia brown; hindwing with ground colour greyish white; marginal and submarginal areas, except for spaces 1, 2 and 3, darkish brown; three basal brown spots and three discal large spots, edged with white, prominent; postdiscal markings incomplete, being not so conspicuous; anal lobe black; marginal markings in spaces 2 and 3 brilliant bluish, and that of space 3 pupilled by a small black spot; white-tipped tail long; cilia brown, but only in anal angle white.



Figs. 40–48. Lycaenidae and Hesperiiidae: (40) *Pithecops nihana luzonica* ssp. nov., holotype ♂, underside, 9 mm in forewing length; (41) *Nacaduba sericina* Felder, ♂, upperside, 15 mm; (42) do., underside; (43) *Celastrina strophis filipina* ssp. nov., holotype ♂, upperside, 13 mm; (44) do., underside; (45) *Miletus sumethus atimonicus* ssp. nov., holotype ♂, upperside, 18 mm; (46) do., underside; (47) *Halpe nuydai* sp. nov., holotype ♂, upperside, 16 mm; (48) do., underside.

Female. Uppersurface: forewing having basal and discal areas purple with black broad border; hindwing black, with purple streaks near anal angle and at base of tail. Undersurface as in male.

In male genitalia, brachium strongly sharpened; terminal part of ampulla curved weakly inside, having small dentate processes.

This new species is closely allied to *A. bicolora* Röber from Celebes, which Semper (1886–1892) also recorded from Cebu and South East Mindanao, but differs from *bicolora* in some important points: 1) Size much smaller (*bicolora* ♂ 23 mm in forewing length). 2) In male, uppersurface deep purple, but in *bicolora* purple blue, the border being not so broad as in *bicolora* and the width of *shigeae* being 0.5 mm in ♂ and 3.0 mm in ♀. 3) Costal areas of both wings on undersurface light brown, but not so dark as in *bicolora*. 4) On undersurface, discal brown spots of forewing and costal brown spots in spaces 8 and 9 of hindwing not so large as in *bicolora*.

Locally abundant species in Ashin.

The name of this new species is dedicated to Mrs. Shigé Murayama, mother of one of us, in celebration of her 80 years old.

93. *Flos apidanus palawanus* Staudinger ウラマダラムラサキシジミ*
1♂, Ashin. Rare species.

94. *Surenda vivarna amisena* Hewitson マルバネミツオムラサキシジミ*
2♂♂, 2♀♀, Ashin.

95. *Iraota timoleon luzoniensis* ssp. nov. (Figs. 37, 38) ウラギンモンミツオシジミ*

Holotype ♀, forewing length 19 mm, 3. IV. 1972, Ashin; in the personal collection of Murayama.

Semper (1886-1892) applied the name *lazarena* Felder, occurring in Mindoro, to the Luzonian race, but in *lazarena* the ground colour of undersurface is dark brown, having hardly white markings of hindwing.

This new subspecies is somewhat similar to two subspecies *boholica* Fruhstorfer, from Bohol Island, and *johnsoniana* Holland, from Celebes, but the silvery white streak in the cell of forewing on undersurface is slender and interrupted; the silvery white dot on discoidal vein is larger; the subcostal silvery white band of hindwing on undersurface is very broad, becoming narrower towards the base and apex, interrupted by the reddish brown ground colour near apex; and the ground colour in outer 1/3 of hindwing on undersurface is yellowish brown, and the inner 2/3 is reddish brown.

Scarce in Ashin.

96. *Spindasis syama negrita* Felder ミツボシフタオツバメ

19♂♂, 4♀♀, Ashin. It seems to us that there are two forms in this race, i.e., the bands and markings, containing silvery lines, of hindwing on undersurface black or reddish brown. Of four female specimens collected, one bears white mark on forewing above; in another female the central area of both wings above is greyish and bluish white, being semi-transparent when seen through the bands of undersurface.

97. *Sapligis epius semperi* Fruhstorfer シロモンクロシジミ

3♂♂, 2♀♀, Ashin. In female appears a very prominent yellowish white markings at the end of the cell on forewing of uppersurface.

98. *Pithecops nihana luzonica* ssp. nov. (Figs. 39, 40) ウライウラボシシジミ

Holotype ♂, forewing length 9 mm, and paratypes 2♂♂ and 1♀, 9-13 mm, 3-6. IV. 1972, Ashin; all in the personal collection of Murayama.

Semper (1886-1892) recorded no materials of this species from North Philippines, including Luzon and Mindoro.

This new subspecies differs from the Formosan race *wai* Bethume-Baker in the following points: Size is much smaller. On undersurface, forewing with row of marginal black markings is somewhat larger, but the submarginal line is darkish brown, thinner and approaches closely to the row of black markings. The black circular mark at costa of hindwing on undersurface is fairly small and two black spots in the middle of costa of forewing on undersurface is extremely minute.

99. *Catochrysops panormus exiguus* Distant オナガウラナミシジミ

4♂♂, 5♀♀, Ashin.

100. *Syntarucus plinius* Fabricius カクモンシジミ

1♂, Ashin.

101. *Jamides cleodius semperi* Fruhstorfer センペルウラナミシジミ*

3♂♂, 2♀♀, Ashin. Beautiful *Jamides* having the bright bluish wing on uppersurface in male.

102. *J. alecto manillana* Toxopeus シロウラナミシジミ

4♂♂, 2♀♀, Ashin.

103. *J. celeno* Cramer コシロウラナミシジミ

1♂, Tagaytay.

104. *Nacaduba kurava beroe* Felder アマミウラナミシジミ

2♂♂, Ashin.

105. *N. nora semperi* Fruhstorfer ヒメウラナミシジミ

1♂, Ashin.

106. *N. sericina* Felder (Figs. 41, 42) ルソンウラナミシジミ*

1♂, Ashin. This is an extremely beautiful and rare species. We found another butterfly in the forest near Ashin, but let it escape, owing to its rapid flight.

107. *Zizina otis* Fabricius タイワンコシジミ
5♂♂, Ashin and Baguio.
108. *Zizeeria maha okinawana* Matsumura ヤマトシジミ
4♂♂, 1♀, Ashin. The Luzonian form resembles the race of Okinawa, Japan, so we have determined as the same race with spp. *okinawana* Matsumura.
109. *Zizula hylax* Fabricius ホリイコシジミ
3♂♂, Ashin.
110. ***Celastrina strophis filipina*** ssp. nov. (Figs. 43, 44) ベンゲットルリシジミ*
Holotype ♂, forewing length 13 mm, 5. IV. 1972, Mt. Santo Thomas; paratypes 2♂♂, 13–14 mm, 5–8. IV. 1972, Atimonan and Mt. Santo Thomas; the type-series is in our collection.
The species *strophis* occurs in Borneo as well as in Celebes, but has not yet been known from Luzon, though Fruhstorfer (1922) assumed its distribution in Philippines.
The Luzonian race is distinguished from the nominate one in having the more reduced markings and spots on undersurface, and the lighter blue ground colour and the narrower black border of outer margin on upper-surface of both wings.
111. *C. puspa cagaya* Felder タイワンルリシジミ
2♂♂, 1♀, Ashin.
112. *Allotinus fallax* Felder ウラシモフリシジミ*
1♂, Ashin.
113. *Miletus melanion* Felder クロウラシモフリシジミ*
1♂, Atimonan.
114. *M. boisduvalii* Moore ヒメウラシモフリシジミ*
1♂, 1♀, Ashin.
115. ***Miletus sumethus atimonicus*** ssp. nov. (Figs. 45, 46) シロウラシモフリシジミ*
Holotype ♂, forewing length 18 mm, 8. IV. 1972, Atimonan; in the personal collection of Murayama.
Uppersurface: both wings with ground colour white, except for black apical area on forewing and for black costal area on hindwing; outer margin at vein 4 on hindwing remarkably projected. Undersurface: forewing with ground colour white, except for greyish brown apex, outer margin and basal area; hindwing with almost parts of spaces 1b, 2, 3, 4 and 5 greyish brown and with the remaining area greyish white.
Eliot (1961) mentioned that ssp. *philopator* Fruhstorfer from Mindoro probably occurs in Luzon; but this race is the very dark form, and differs clearly from the present new race.
Appears to be rare in Atimonan.
116. *Castalius roxus augustior* Staudinger ヘリグロヒメシジミ*
1♂, Ashin.

Hesperiidae

117. *Badamia exclamationis* Fabricius タイワンアオバセセリ
1♂, Ashin.
118. *Tagiades trebellius martinus* Plötz コウトウシロシタセセリ
1♂, Ashin.
119. *T. gana elegans* Mabille ガーナシロシタセセリ*
1♂, Ashin.
120. *Notocrypta paralysos volux* Mabille ヒメシロモンクロセセリ*
4♂♂, Ashin.

121. *Halpe beturia sulphurifera* Herrich-Schäffer キイロチャバネセセリ*
2♂♂, Ashin.

122. *Halpe nuydai* sp. nov. (Figs. 47, 48, E) スイーダチャバネセセリ*

Holotype ♂, forewing length 17 mm, and paratype 1♂, 16 mm, 2. IV. 1972, Ashin; the type-series is in the collection of us.

Male. Uppersurface: ground colour of both wings blackish brown; forewing with small spots at each base of spaces 2, 3, 6 and 10; hindwing furnished with yellowish brown tuft in central area. Undersurface: ground colour of forewing brown, four small spots of forewing as in uppersurface; costal and apical areas mixed with greyish scales; hindwing with submarginal area light brown, and central area greyish brown, including a row of brownish spots from spaces 3 to 6. Forewing pointed at apex as in *Pelopidas agna* and hindwing slightly pointed at anal angle. Antennae with club very remarkable white on dorsal portion; dorsal portion of apiculus brown and very sharply pointed but on ventral portion; club reddish white and tip of apiculus reddish brown.

Male genitalia much resemble those of *Thoressa horishana* from Formosa, but the termen of harpe is more pointed.

We name this new species after our dear Mr. Hermel Nuyda and his son.

123. *Plastingia telesinus* Mabille コモンキマダラセセリ*
1♂, Ashin.

124. *Taractrocera ziclea* Plötz ルソンヒメキマダラセセリ*
1♂, Ashin.

125. *Potanthus hetaerus* Mabille フィリピンチビキマダラセセリ*

1♂, Mt. Santo Thomas. The present male specimen, as compared with the figure of *hetaerus* in Seitz's work (1927, pl. 170, fig. i), has the more reduced orange marking on the uppersurface of forewing, i.e., discal band narrower, apical marking small, and some streaks at end of cell as well as of costa faint. Probably this form may be the alpine form of this species in Luzon. Further detailed research needs more materials.

126. *Telicota colon vaja* Corbet ネットタイアカセセリ
3♂♂, Mt. Santo Thomas and Ashin.

127. *Prusiana prucias matinus* Fruhstorfer フィリピンアカセセリ*
1♂, Ashin.

128. *Borbo bevani* Moore コモンチャバネセセリ
2♂♂, Ashin.

129. *Pelopidas agna* Moore トガリチャバネセセリ
4♂♂, Ashin.

References

- Corbet, A.S. & Pendlebury, H.M. (1947) *The butterflies of the Malay Peninsula*. Second Edition. Oliver & Boyd, Edinburgh.
- Cowan, C.F. (1966) Indo-Oriental Horagini. *Bull. Br. Mus. nat. Hist. (Entl.)* 18: 103–140, 3 pls.
- (1967) Indo-Oriental tribe Cheritini. *Bull. Br. Mus. nat. Hist. (Ent.)* 20: 75–103, 4 pls.
- Eliot, J.N. (1961) An analysis of the genus *Miletus*. *Bull. Raffles Mus.* No. 26: 154–177.
- (1967) Revisional notes on Oriental butterflies, with special reference to Malaya (Part 3). *Entomologist* 100: 137–141.
- (1969) More revisional notes on Oriental butterflies. *Entomologist* 102: 269–278.
- (1969a) An analysis of the Eurasian and Australian Neptini. *Bull. Br. Mus. nat. Hist. (Ent.)* Suppl. 15: 1–155, 3 pls.
- Evans, W.H. (1949) *A Catalogue of the Hesperidae from Europe, Asia and Australia in the British Museum*. British Museum, London.

- (1957) A revision of the *Arhopala* group of Oriental Lycaenidae. *Bull. Br. Mus. nat. Hist. (Ent.)* 5: 85–141.
- Hiura, I. & Alagar, R.E. (1971) Studies on the Philippine Butterflies chiefly collected by the co-operative survey by the Osaka Museum of National History and the National Museum of the Philippines, 1969. Part 1: Papilionidae. *Bull. Osaka Mus. Nat. Hist.* No. 24: 29–44, 4 pls.
- Marsh, J.C.S. (1960) *Hongkong Butterflies*. The Shell Company of Hongkong Ltd., Hongkong.
- Seitz, A. (1927) *Grossschmetterlinge der Erde* 9. Alfred Kernen Verlag, Stuttgart.
- Semper, G. (1886–1892) *Die Schmetterlinge der Philippinischen Inseln*. C. W. Kreidel's Verlag, Wiesbaden.
- Shirôzu, T. (1960) *Butterflies of Formosa in colour*. Hoikusha, Osaka.

摘 要

われわれは1972年4月1日より8日までの短期間、フィリピンのルソン島各地で採集を行い、確実な目撃種4種を含めて計129種五百数十頭の蝶類を得た。おもな採集地は Santo Thomas (2日, 5日), Ashin (3日, 4日, 6日), Tagaytay (1日), Atimonan (8日), Baguio (7日) Manila 近郊低地 (8日) 等である。4月は同地で一年中最も暑い時期にあたり、同月下旬よりは雨期に入る。アゲハチョウ科全体としては、ひとつの発生期の山をすぎた感があったが、ミスヂチョウ類やシジミチョウ類には好時期とみえ、短期間の割に成果を収めえた。岡村にとっては今回は第2回目のルソン島採集であった。129種のうち、新種と思われるもの2種、新亜種と思われるもの7種のほか、未記録種と覚しきもの若干あり、なお学名の決定に研究の余地あるものが少くない。また岡村は Ashin, Baguio において *Papilio rumanzovia*, *P. hydaspes*, *P. ledebouria* の採卵を行い、阿江茂博士に托して飼育・羽化に成功をみたが、*P. benguetana* 1♀は同氏よりのお知らせによると、2個産卵したうち1卵のみ孵化し第5令に達したが惜しくも死亡したということであった。

学名の前に*記を付したものは目撃種、また和名の後に*印を付したものは今回新しくつけられたものである。掲載の写真は従来図示されることの少なかった、あるいは全く図示されたことのない種、亜種または性を選んだ。